b) the gas stream from a) is shifted, in one step, whereby the content of CO is reduced and the amounts of CO_2 and H_2 are increased by reaction of H_2O at a ratio H_2O:CO of from 1 to 9;

c) the gas stream from b) is separated in a separation unit into a CO_2-rich and a H_2-rich gas stream, respectively.

B1

4. (Twice Amended) Method according to claim 1, characterized in that the ratio H_2O:CO in the shift process is from 1.5 to 4.

B2

11. (Twice Amended) Method according to claim 1, characterized in that the reformer reactor is a partial oxidation reactor.

B3

12. (Twice Amended) Method according to claim 1, characterized in that the reformer reactor is an autothermal reformer.

B4

14. (Amended) Method according to claim 11, characterized in that the reforming is carried out without a catalyst.

16. (Amended) Method according to claim 10, characterized in that the CO_2-rich gas stream includes at least part of N_2.

B5

17. (Amended) Method according to claim 1 wherein the produced CO_2-rich gas stream is applied for injection into marine formations.

18. (Amended) Method according to claim 1 wherein the produced H_2-rich gas stream is applied for hydrogenation.

19. (Amended) Method according to claim 1 wherein the produced H_2-rich gas stream is applied as a source of energy / fuel in fuel cells.

B5

20. (Amended) Method according to claim 1 wherein the produced H_2-rich gas stream is applied for the production of electricity.